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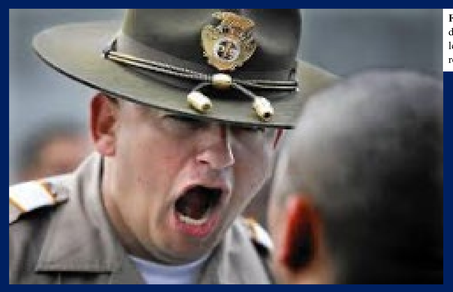

Figure 1: Law enforcement drill instructor communicating leadership principles with recruit during induction.

Figure 2: Sample law enforcement drill instructor staff. Usual DI Staff for a class of 100 recruits was eight DI's supervised by one sergeant with one lieutenant supervising six staffs

Introduction

The physical training of recruits is often conducted by specialized drill instructors (DIs) (Figures 1-2). Recruit injury studies are common, but there has been less analysis of injuries and injury rates specific to the DI staff.

Specialized DI Staff staff are needed to properly train high volumes of recruits and are themselves a high value asset costing approximately $500,000 USD to train.

Purpose

The aim of this study was to profile injuries sustained by DIs responsible for training recruits at one of the largest law enforcement academies in the United States (US).

Methods

Archived departmental DI injury data from one of the largest US law enforcement academies was analysed using the following variables:

- Sex,
- Age at time of injury,
- Years assigned to recruit training at time of injury,
- Type of injury were analysed descriptively
- Relative risk per 1,000 person-hours.

Results & Discussion

- Fourteen male and seven female DIs reported 45 total injuries over a 6-year period.
- Minimum age at time of injury and minimum time assigned to the unit at time of injury were 32.67 years and 0.18 years respectively.
- Maximum age at time of injury and maximum time assigned to the unit at time of injury were 55.11 years and 21.24 years respectively.
- Average time between assignment to recruit training unit and occurrence of training related injury was 4.90 (±5.32) years with an average age at injury of 40.22 (±5.79) years.
- All injuries reported by DIs resulted in an injury rate of .167 per 1000 person-hours and 659 days lost/light duty for an average rate of 14.97 (±46.64) days per injury.
- Bodily sites of injury were categorized as lower extremity (Figure 3) (57.78%), upper extremity (31.11%), and spine/back (11.11%) (Figure 4).
- Over 67% of injuries were musculoskeletal in nature and classified as cumulative overuse injuries.

Figure 5: Drill Instructors also often fulfil the role of arrest and control/defensive tactics instructors with recruits while results in additional total training load. Photographer: R Lockie

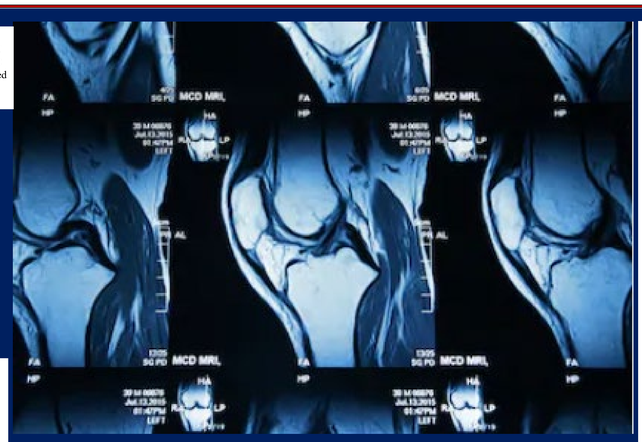

Figure 3: MRI of lower extremity injury.

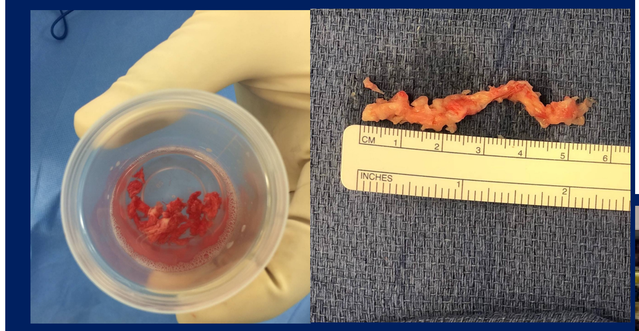

Figure 4: Disc extrusion from DI injury. Photographer: JH.

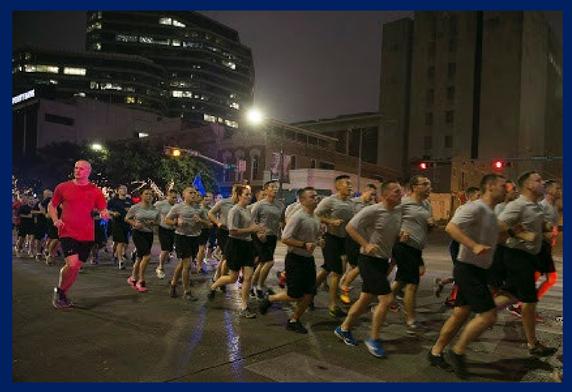

Figure 6: Drill Instructors and department executives running with recruits in a group formation run which still provides a majority of recruit aerobic programming.
Photographer: Deborah Cannon /American Statesman

Conclusion

- A vast majority of injuries observed were musculoskeletal and classified as cumulative overuse with high running volume as a factor.
- As DIs train with recruits, they were subject to the same types and volumes of exercise and often more as many DIs arrived early, stayed late, fulfilled multiple roles (such as adjunct defensive tactics, physical training, and leadership instructors (Figures 5-7)), and engaged in additional physical training outside of time with recruits.
- Academy training for this agency often featured high volumes of running.
- Historical research has indicated this form of training can increase the risk of injury in military and law enforcement populations.
- The data in this study also indicates injury risk for DIs performing the same types of physical training as recruits.

Figure 7: DI providing leadership and instructing physical training.
Source: https://www.timesfreepress.com/news/local/story/2013/jan/30/tennessee-cities-have-low-fire-police/98370/

Operational Relevance:

As DIs need to train with recruits, in addition to providing a standard of fitness for their academy classes, their health and physical performance are paramount.

Reducing running volume, increasing resistance training, and focusing periodization of programming and recovery in both personal and training with recruits could assist in mitigating injuries and increasing operational readiness.